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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/836,541	04/18/2001	Ryan C. Kinter	1778.0200000 (00128.00US)	6813
26111	7590	04/28/2004	EXAMINER	
STERNE, KESSLER, GOLDSTEIN & FOX PLLC 1100 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			PAN, DANIEL H	
			ART UNIT	PAPER NUMBER
			2183	4

DATE MAILED: 04/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.	Applicant(s)	
	09/836,541	KINTER ET AL.	
	Examiner	Art Unit	
	pan	2183	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-8 and 10 is/are rejected.
- 7) ☐ Claim(s) 4 and 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

1. Claims 1-10 are presented for examination.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claim 1-3, 5-7, 8,10 are rejected under 35 U.S.C. 102(a) as being anticipated by Witt (6,199,154)

3. As to claims 1, 8,10, Witt disclosed a cache controller system (see fig.7) comprising at least :

a) a plurality of mappers [cache entries 16] for receiving instructions of a first set (from instruction bytes) , each mapper for mapping instruction to a predetermined instruction width configuration [tag, predecode data, and instruction byte] (see the predecode data included the start byte position and boundary information of the instruction in col.5, lines 65-67, col.6, lines 1-23, see col.25, lines 39-65)

b) a mux [106] for receiving the configuration [predecode data, the instruction byte] from the mappers and selecting in response to a select signal [select 102] a desired one of the width configuration for decoding and execution (e.g. see selection control provided to mux 106 in col.25, lines 50-65, col.26, lines 1-31);

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c) means for comparing the tag associated with eh instruction to a desired tag and generating the select signal to cause the mux to select a desired width format configuration information (see citations in Paragraph # 4 below);

d) an execution unit (fig.1 processor 10 [32], see execution of instructions by processor 10 in col.5, lines 45-64, see also col.1, lines 18-37 for the execution of plurality of instructions in the background);

e) decoder [12] (see col.6, lines 65-67, col.7, lines 1-10, lines 39-57);

4. As to claims 2,3, Witt also included a associated tag and tag comparison for the corresponding instruction (e.g. see the tag comparison in col.25, lines 50-67, col.26, lines 1-25).

5. As to claim 5, Witt also taught at least :

a) reading a plurality of instructions from a cache [cache 14] into the mappers [cache 16] , and mapping each instruction to corresponding predetermined width format configurations (see the predecode data with the corresponding instruction byte in fig.7, see also the predecoding data included the start bit position and the boundary information of the instructions in col.5, lines 65-67, col.6, lines 1-23);

b) selecting the desired one of instruction width configuration (e.g. see selection control provided to mux 106 in col.25, lines 50-65, col.26, lines 1-31).

6. As to claim 6, Witt also included a associated tag and tag comparison for the corresponding instruction (e.g. see the tag comparison in col.25, lines 50-67, col.26, lines 1-25).

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7. As to claim 7, Witt's cache 14 was applicable as a fill buffer because it was used as a high speed storage for storing the plurality of instructions.(e.g. see col.7, lines 50-63)

8. Claims 4, 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. None of the prior art of record further teaches the combined features of the fill buffer and instruction cache. Witt taught his mapper received instructions from an instruction cache (fig.7 I cache 14), but failed to teach another mapper for receiving instructions from a fill buffer. While Witt's cache 14 can be seen as a fill buffer, but the combined limitations of a mapper (second mapper) received instructions from an instruction cache (fig.7 I cache 14), and another mapper (first mapper) for receiving instructions from a fill buffer is not being taught.

9.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a) Tran et al. (6,049,863) is cited for teaching of mapping the width configurations with the corresponding instruction (e.g. see fig.3).

b) Brennan (5,740,392) is cited for the background teaching of the plurality of mappers with a use of a mux for selecting the instruction length (e.g. see fig.3, col.3, lines 8-27).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dan Pan whose telephone number is 703 305 9696. The examiner can normally be reached on M-F from 8:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chan, can be reached on 703 305 9712. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

21 Century Strategic Plan

DANIEL H. PAN
PRIMARY EXAMINER
GROUP 1

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